



## **Extreme Heat**

From 1979-1999, excessive heat exposure caused 8,015 deaths in the United States. On average approximately 400 people die each year from exposure to heat.

### **Key Messages**

- Prevent heat-related illness and death.
- Heat-related illness is serious but preventable.
- Learn about the signs and symptoms and how to prevent it.

### **Major Issues/Concerns**

The elderly, the very young and people with mental illness and chronic diseases are at highest risk. However, even young and healthy individuals can succumb to heat if they participate in strenuous physical activities during hot weather.

People suffer heat-related illness when the body's temperature control system is overloaded. The body normally cools itself by sweating. But under some conditions, sweating just is not enough. In such cases, a person's body temperature rises rapidly. Very high body temperatures may damage the brain or other vital organs. Several factors affect the body's ability to cool itself during extremely hot weather. When the humidity is high, sweat will not evaporate as quickly, preventing the body from releasing heat quickly. Other conditions that can limit the ability to regulate temperature include old age, youth (age 0-4), obesity, fever, dehydration, heart disease, mental illness, poor circulation, sunburn, and prescription drug use and alcohol use.

Heat stroke is the most serious heat-related illness. It occurs when the body becomes unable to control its temperature: the body's temperature rises rapidly, the sweating mechanism fails, and the body is unable to cool down. Body temperature may rise to 106°F or higher within 10 to 15 minutes. Heat stroke can cause death or permanent disability if emergency treatment is not provided. Warning signs of heat stroke vary but may include the following:

- Red, hot, and dry skin (no sweating)
- Rapid, strong pulse
- Throbbing headache
- Dizziness, nausea, confusion, or unconsciousness
- An extremely high body temperature (above 103°F)

### **Recommendations**

Air conditioning is the strongest protective factor against heat-related illness. Electric fans may provide comfort, but when the temperature is in the high 90s, fans will not prevent heat-related illness. Taking a cool shower or bath or moving to an air-conditioned place is a much better way to cool off. Exposure to air conditioning for even a few hours a day will reduce the risk for heat-related illness. Consider visiting a shopping mall or public library for a few hours

Pace yourself if you work in a hot environment. If you are not accustomed to working or exercising in a hot environment, start slowly and pick up the pace gradually. If exertion in the heat makes your heart

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Page 1 of 2

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(continued from previous page)

pound and leaves you gasping for breath, STOP all activity. Get into a cool area or at least in the shade, and rest, especially if you become lightheaded, confused, weak or faint.

The best defense for heat-related illness is prevention. When temperatures are extremely high, remember to keep cool and use common sense. Other tips include the following:

- Drink plenty of fluid
- Replace salts and minerals
- Wear appropriate clothing and sunscreen
- Pace yourself
- Stay cool indoors
- Schedule outdoor activities carefully
- Use a buddy system
- Monitor those at risk
- Adjust to the environment

Please visit our website at [www.cdc.gov/nceh/hsb/extremeheat/default.htm](http://www.cdc.gov/nceh/hsb/extremeheat/default.htm) for additional information on the following:

- Tips on preventing and managing heat
- The difference between heat stroke, heat exhaustion and sunstroke
- Warning signs and prevention of illness and death from heat exposure
- Can medications increase the risk of heat-related illness?
- Other heat-related health problems

For more information, visit [www.bt.cdc.gov](http://www.bt.cdc.gov) or call the CDC public response hotline at (888) 246-2675 (English), (888) 246-2857 (Español), or (866) 874-2646 (TTY)